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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,870

01/12/2006

Kouji Yamashita

018773-044

2256

21839

7590

04/20/2009

BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

ALI, MOHAMMAD M

ART UNIT

PAPER NUMBER

3744

NOTIFICATION DATE

DELIVERY MODE

04/20/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No. 10/529,870	Applicant(s) YAMASHITA ET AL.	
	Examiner MOHAMMAD M. ALI	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,27-29 and 3132 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-29 and 31-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

Claim 28 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 28 only repeats the contents of claim 27 on which it depends and fails to further limit the subject matter of claim 27.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 27-28** are rejected under 35 U.S.C. 102(b) as being anticipated by Sanagi (EP 0926452).

In regard to claims 27-28, Sanagi teaches a pressure pulsation reduction equipment of refrigeration cycle equipment comprising a refrigeration cycle including a compressor (10) (see Fig. 1 and para 32) and a pressure pulsation reducer (4,5) which is installed on at least one of a high pressure side and a low pressure side of the compressor (10) (see Fig. 1), the pulsation reducer (4,5) including a flow-channel separator (5c) (col 6 lines 11-15) with a plurality of small holes (see Fig. 2) and the flow-channel separator (5c) formed open on one end

Art Unit: 3744

(sides near heat exchangers 9) and in contact with a flow-channel wall (8) on another end (see Fig. 1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 31-32 are** rejected under 35 U.S.C. 103(a) as being unpatentable over Sanagi (EP 0926452).

In regard to claims 31, Sanagi teaches a pressure pulsation reducer (4,5) on a compressor (see Fig. 1) with a plurality of small holes (see Fig. 2), but do not explicitly teach that the holes have a diameter up to 10mm or that teach the pressure pulsation reduction equipment of refrigerant cycle equipment wherein a diameter of each small hole of the plurality of small holes is up to 10mm or that the plurality of small holes is up to 10% where the open area ratio is a ratio of a total cross-sectional area of the plurality of small holes.

Claims 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujiwara et al (JP 11-107959 A). Fujiwara et al disclose a pressure pulsation reduction equipment of refrigeration cycle equipment, comprising:

a refrigeration cycle including a compressor (1), which is connected to a pipe (35) that is a flow-channel; and a pressure pulsation reducer pipe end with plate (39) which is

Art Unit: 3744

installed on at least one of a high pressure side (this pressure pulsation device is installed at the high pressure side, see Fig 1) and a low pressure side (This pressure pulsation device can be more than one and can be placed at any desired place, see Para [0021] of the machine translation enclosed) of the compressor (1), the pressure pulsation reducer including a flow-channel separator with a plurality of small holes (41, see Fig. 1), and the flow-channel separator formed open on one end and in contact with a flow-channel wall (3) in the pipe on another end. See Fig. 1 and the enclosed translation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29,31and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiwara et al.

Regarding claim 29, Fujiwara et al disclose pressure pulsation reducer including oil separation as seen lubricating oil 45 is being separated while pressure pulsation is being done by pressure pulsation device with end plate (39). Therefore, it indicates that pressure pulsation device can be placed in a lubrication separator as a separator and pressure pulsation means. Again placing a pressure pulsation device either at a discharge side of a compressor or suction side of a compressor or in a oil separator is nothing but rearranging part of an invention. Since it has been held that rearranging

Art Unit: 3744

parts of an invention involves only routine skill in the art. (See *In re Japikse*, 86USPQ 70).

Regarding claim 31, Fujiwara et al disclose the pulsation device with small holes (41 see abstract). It indicates the holes needed for the purpose of pulsation reduction should be small enough to perform the pulsation reduction efficiently. Although, Fujiwara et al do not disclose a specific hole size like 10mm, an ordinary skill of art when taught by Fujiwara et al that small holes are needed to perform pulsation reduction, it is obvious that the ordinary skill of art is equally able to select a suitable hole size including 10mm hole size.

Regarding claim 32, Fujiwara et al disclose the pulsation device with small holes (41 see abstract). It indicates the holes needed for the purpose of pulsation reduction should be small enough and the holes should not be distributed all over the discharge or suction pipe of the compressor to efficiently perform the pulsation reduction operation. Although, Fujiwara et al do not disclose a specific open area ratio of plurality of small holes, an ordinary skill of art when taught by Fujiwara et al that small holes are needed to perform pulsation reduction is distributed to a very small portion of the discharge pipe, it is obvious that the ordinary skill of art is equally able to select a suitable hole size including a specific open area ratio of the plurality of small holes is up to 10% where the open area is a ratio of total cross-sectional area of the plurality of small holes to an area of the flow channel wall.

Response to Arguments

Applicant's arguments filed 10/23/08 have been fully considered but they are not persuasive. The applicant argues and relates the invention with Applicants Fig. 23 and tries to overcome the rejections as the Fig. of prior art does not equates the Applicant Fig. 23. The Examiner disagrees. The Examiner does not need to find the similar Fig. Of the applicant but need to anticipate the clime element. The examiner belief that the art used and the comments of the Fig used anticipates the claimed invention as shown in 102 rejections. Similarly 103 rejection have been effected with proper description.

However, the Examiner reviewed and used further new arts for better understanding and rejections have been made with new ground of rejection and new art as explained above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD M. ALI whose telephone number is (571)272-4806. The examiner can normally be reached on maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohammad M Ali/
Primary Examiner, Art Unit 3744